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MAJOR POINTS OF DISCUSSION

5-17-91

DOE/EPA
DOE-1359-91
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LETTER

Department of Energy
Fernald Site Office
P.O. Box 398705
Cincinnati, Ohio 45239-8705
(513) 738-6319

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MAY 17 1991
DOE-1359-91

Ms. Catherine A. McCord
Remedial Project Manager
U. S. Environmental Protection Agency
Region V - 5HR-12
230 South Dearborn Street
Chicago, IL 60604

Mr. Graham E. Mitchell, DOE Coordinator
Ohio Environmental Protection Agency
40 South Main Street
Dayton, OH 45402

Dear Ms. McCord and Mr. Mitchell:

MAJOR POINTS OF DISCUSSION

Enclosed for your information are the major points, which were discussed during the May 3, 1991, meeting in Chicago. Included in the enclosure is additional information on K-65 activities, which was requested in the meeting.

In addition, per our discussion on May 14, 1991, I have enclosed a weekly report with a current schedule.

If you have any questions, please contact Randi Allen at (513) 738-6158 or FTS 774-6158 or me at (513) 738-6159 or FTS 774-6159.

Sincerely,

Jack R. Craig
Fernald Remedial Action
Project Manager

FSO:Allen

Enclosure: As stated

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MAY 2 1 1991

cc w/encl.:

J. J. Fiore, EM-42, GTN
K. A. Hayes, EM-424, GTN
D. Kozlowski, EM-424, GTN
L. August, GeoTrans
K. Davidson, OEPA-Columbus
J. A. Saric, USEPA-V, 5HR-12
M. Butler, USEPA-V, 5CS-TUB-3
J. Benetti, USEPA-V, 5AR-26
E. Schuessler, PRC
R. L. Glenn, Parsons
W. H. Britton, WMCO
H. F. Daugherty, WMCO
S. W. Coyle, WMCO
L. Bogar, WMCO
D. Nixon, WMCO
J. D. Wood, ASI
AR Files

cc w/o enc.:

C. R. Holmes, USEPA-HQ
W. E. Muno, USEPA-V, 5HR-13
D. A. Ullrich, USEPA-V, 5H-12
G. G. Ioannides, OEPA-Columbus

AR File
ERA File

[redacted]

MEETING BETWEEN DOE/U.S. EPA/STATE OF OHIO
MAJOR POINTS OF DISCUSSION
MAY 3, 1991

- o EPA will not concur on meeting minutes. DOE will continue to document our understanding of the outcome of meetings.

- o A status of K-65 activities was provided to EPA by DOE. EPA requested additional information on the following specific activities (information enclosed):

  - EPA requested radiological data from IT Laboratory for slant boring #1 be provided to them when available. They will then determine if a Work Plan revision is required.

  - Gross alpha and beta on the slant boring #1 analysis looks high. Check QA samples.

  - Determine where the liquid from Silo 4 will be stored after samples have been taken and before the analysis has been received from the laboratory.

  - What was left in slant boring #1 after the sampling was aborted?

  - Review existing work plan for sampling frequency of decant tank.

  - DOE should prepare a Work Plan amendment to include the sampling of hydrogen.

  - Check the Work Plan for frequency of monitoring after completion of the Removal Action.

  - EPA requested that DOE perform a pH analysis on the silo contents to check for its compatibility with the bentonite.

  - DOE shall provide information to EPA concerning the planned contingency exercise.

- o EPA and DOE agreed that additional off-site monitors are not required. Interpretation of the data will be too difficult.

- o The discussion on additional Removal Actions for the K-65 Silos will continue. DOE will continue to defer the discussion until the effectiveness of the bentonite has been determined. U.S. EPA will continue to recommend installation of a protective structure due to the inevitable extension of the ROD date.

- o DOE discussed the plan to incorporate assumptions into the revised Consent Agreement. EPA said the mechanism for schedule extensions was already in the existing agreement.

- o The next meeting of the K-65 Advisory Committee was scheduled for May 22, 1991.

[redacted]

[redacted]

Additional Information on K-65 Activities

1) Submit IT radiological data on perched groundwater to EPA.

   Resolution: Upon receipt, this data will be made available to EPA. The analysis is anticipated to be complete in approximately two months.

2) Gross alpha and beta looks high on the WMCO analysis of the perched groundwater form slant boring #1.

   Resolution: The analysis showed less than 1.0 pCi/ml and less than 2.0 pCi/ml, respectively; below detection limits. The previous analysis provided to EPA did not indicate that the results were less than the recorded levels. A gamma scan will be performed on the water to better define the levels of contaminants.

3) Determine storage location of water contained in Silo 4 during analysis.

   Resolution: The water now contained in Silo 4 will remain there until the analysis is available from the WMCO lab. At that time, a determination will be made on removal of the material. It is anticipated that the rainwater will meet the NPDES requirements, and would therefore be transported to the Biodenitrification Facility.

4) What was left in slant borings #1 and #3 after boring was discontinued due to the encounter of perched groundwater?

   Resolution: The augers were left in slant borings #1 and #3.

5) What is the sampling frequency for the decant sump?

   Resolution: Per the Decant Sump Work Plan, page 7, Section V, the decant sump will be sampled on a monthly basis for uranium, thorium, radium, and liquid measurement.

6) DOE is to prepare a Removal Action Work Plan amendment for sampling of hydrogen in the headspace of Silos #1 and #2.

   Resolution: A separate sampling and Health and Safety Plan is being prepared to accommodate this requirement. These documents will be internally approved documents, consistent with site procedures.

7) Check Work Plan for radon monitoring requirements upon completion of the Removal Action.

   Resolution: Per the Work Plan, Section V, pg. 13, chart data will be collected on a weekly basis and transmitted to EPA as part of the Quarterly Report.

8) DOE should perform a pH analysis on the silo contents to confirm compatibility with the bentonite.

   Resolution: The requirement to perform a pH analysis is not included in either the Remedial Investigation Report or the Resampling Work Plan.

[redacted]

The analysis will be performed to support the treatability studies. It is believed that the pH of the material since its placement in the silos has not varied, significantly. When placed in the silos the residues had a pH of 7.

9) Provide EPA with information concerning the contingency exercise for the silos.

Resolution: The information is enclosed.

[redacted]

K-65 AREA WEEKLY REPORT
MAY 16, 1991

Slant Borings

On May 4, 1991, perched groundwater was encountered while boring in the southwest area under Silo 1 (Boring 3). The perched groundwater was encountered at 53.5 feet, approximately 30 feet (horizontal distance) from the footer of Silo 1. As with Boring 1, the groundwater at Boring 3 will be sampled. The augers have been left at both locations in the event that additional sampling will be performed.

The pad is being set up for Boring 2 (under Decant Sump Tank).

Berm Sampling

Due to the recovery of only 12 feet of soils on the initial sampling effort (southwest, Silo 1), a second sample in the southwest area was taken on May 3, 1991. The second attempt resulted in an approximately 13 feet sample. We are taking three ten-foot sections in the southwest area to assure adequate material recovery. The first two sections have been extracted resulting in a 80% compacted recovery. The third section will be pulled on May 16, 1991.

Radon Treatment System

The closed loop test for the Radon Treatment System was completed on May 11, 1991. No significant leakage was identified.

Decant Sump

On May 10, 1991, the level in the Decant Sump was measured. The level of the slurry/sludge mixture has not changed since April 16, 1991; thus, there is no indication that liquid has either entered or left the tank. On May 16, 1991, a leak in the flange on the pipe leading to the tank, which contains the decant sump liquid, was detected. An evaluation is underway to determine if the flange may be repaired. Another tank is available to receive the liquid, if required.

[redacted]

[redacted]

HISTORY OF DECISION TO RUN K-65 SILO TABLETOP INSTEAD OF A DRILL.

In mid March Emergency Preparedness learned that the Environmental Protection Agency (EPA) wanted the FMPC to conduct a full scale exercise involving the K-65 Silos within two months. This exercise would require participation by offsite agencies. On March 27, 1991 WMCO provided a recommendation to the Fernald Site Office that included a table top in lieu of the exercise.

WHO WAS CONTACTED?

While preparing the response to the EPA request, Emergency Preparedness contacted Mrs. Irene H. Lewis, Director-Administrator, Butler County Emergency Management Agency; Mr. Don Maccarone, Deputy Director, Hamilton County Emergency Management Agency; and Mr. Lewis Meyers, DOE Planner, Ohio Emergency Management Agency.

WHY CAN'T THE AGENCIES PARTICIPATE?

In every instance, the lead agencies had prior scheduled commitments, in some cases until the end of the fiscal year. At least one agency, Butler County Emergency Management Agency, also felt that it would be a financial burden but this was not the overriding concern. Butler County provided the following written response:

> "We have a natural disaster exercise scheduled for April 27th and are now into planning the scenario and operational actions for it. We also have a chemical exercise scheduled for the first week of September, which is required, and have not yet started the planning for it. These two exercises leave very little time to keep up with the day-to-day activities and any unanticipated activity or emergency which may occur."
>
> "We urge that this exercise be canceled or at least postponed until a more appropriate time."

Verbal responses from Hamilton County and the state of Ohio Emergency Management Agency were similar. The State had two major exercises scheduled with nuclear power plants this summer and/or fall and a full-scale exercise with Portsmouth (a DOE facility). Hamilton County had a SARA Title III drill scheduled for mid-May. These agency commitments prevent them from planning and coordinating the actions necessary to provide an effective field simulation at those agencies. Typical preparation time for a full-scale exercise is 1.5 man-years.

[redacted]

Why are we able to conduct a tabletop and not an exercise?

WHAT IS A TABLETOP?

A tabletop is similar to a drill or exercise in that a scenario is presented and the tabletop participant's response to the scenario is evaluated. It is different in that response actions are discussed rather than executed. For our tabletop, the scenario includes prescripted questions to ensure that a major portion of the emergency response is examined and that all affected organizations, onsite and offsite, are familiar with their expected response and the response of other agencies that they work with. A moderator ensures the discussion follows its intended path. One or more evaluators record the participant's response and evaluate it against established criteria.

A tabletop, however, requires a limited amount of manpower on the part of the offsite agencies while still representing all or most of each State/County EOC's staff that would normally be involved. Instead of having all of a particular agency and its physical resources involved in a drill, a single individual represents each responding county/state agency, thus, only one person, the EOC representative, would be involved. The Counties and State felt that this level of involvement could be supported and still meet the objectives of a simulated K-65 emergency event.

ACTIVITY ID	REM DUR	EARLY START	EARLY FINISH
			SILOS 1 & 2 REMOVAL ACTION
Y404151001	0	12SEP89A	28FEB90A
Y404110001	0	2NOV89A	26JUL90A
Y404031001	0	1AUG90A	22OCT90A
Y404191001	9	3SEP90A	29MAY91
Y404031002	0	10CT90A	5NOV90A
Y404121002	0	80CT90A	14JAN91A
Y404046005	0	5NOV90A	30NOV90A
Y404051001	0	15NOV90A	6MAY91A
Y404311001	31	31DEC90A	28JUN91
Y404095000	13	18FEB91A	4JUN91
Y404096000	72	26APR91A	26AUG91
Y404121001	57	10MAY91A	5AUG91
Y404121003	57	10MAY91A	5AUG91
Y404095001	10	17MAY91	30MAY91
Y404096200	50	4JUN91	12AUG91
Y404091005	40	6AUG91	30SEP91
Y404120004	40	6AUG91	30SEP91
Y404121004	30	6AUG91	16SEP91
Y404097000	14	27AUG91	9SEP91
Y404097002	22	10SEP91	10CT91
Y404097003	1	20CT91	20CT91
Y404097001	20	30CT91	220CT91
Y404098000	25	230CT91	16NOV91
Y404097004	20	17NOV91	6DEC91
Y404099000	81	9DEC91	30MAR92
			K65 DECANT SUMP TANK REMOVAL ACTION
Y406031001	0	21AUG90A	100CT90A
Y406051002	0	20CT90A	3MAR91A
Y406031002	0	100CT90A	10JAN91A
Y406091003	0	4MAR91A	16APR91A
Y406141004	182	5APR91A	27JAN92
			MODIFY RADON TREATMENT SYSTEM
Y407091001	4	19FEB91A	20MAY91
Y407091002	0	19FEB91A	22APR91A
Y407091003	0	25MAR91A	19APR91A
Y407091010	0	22APR91A	2MAY91A
Y407091008	0	8MAY91A	9MAY91A
Y407091004	23	9MAY91A	8JUN91
Y407091009	0	10MAY91A	11MAY91A
Y407091011	2	10JUN91	11JUN91

SILOS 1 & 2 STRUCTURAL ANALYSIS
SILOS 1 & 2 PATHWAYS RISK ASSESSMENT
SUBMIT SILOS 1 & 2 EE/CA AND USEPA APPROVAL
DOE HQ RVW/APRV SILOS 1&2 NEPA DOCUMENT (EA)
PREPARE SILOS 1 & 2 RA WORKPLAN
SILOS 1 & 2 INITIAL SAFETY ASSESSMENT
USEPA REVIEW/APPHOVE SILOS 1 & 2 WORKPLAN
SILOS 1 & 2 TITLE I/II DESIGN
SUBMIT SILOS 1 & 2 PERMIT INFO TO OEPA/USEPA
PREPARE/REVIEW SILOS 1 & 2 RISK ASSESSMENT RPT
SILOS 1 & 2 BENTO-GROUT EQUIPMENT PROCUREMENT
SILOS 1 & 2 BASELINE SAFETY ANALYSIS REPORT
SILOS 1 & 2 FINAL SAFETY ASSESSMENT REPORT
SILOS 1 & 2 ORR COMMITTEE REVIEW
SILOS 1 & 2 DATA LOGGING SYSTEM PROCUREMENT
REVIEW & DOE APPROVAL- SILOS 1 & 2 FINAL ASSESS
REVIEW AND DOE APPROVAL - SILOS 1 & 2 SAR
SILOS 1 & 2 OSR
INSTALL BENTO-GROUT EQUIPMENT FOR SILOS 1 & 2
CONDUCT TEST/TRAINING FOR SILOS 1 & 2
ORR WALK THROUGH FOR BENTO-GROUT PLACEMENT
BASELINE MAPPING OF SILOS 1 & 2
PLACE BENTO-GROUT IN SILOS 1 & 2
FINAL MAPPING OF SILOS 1 & 2
MONITOR BENTO-GROUT EFFECTIVENESS IN SILOS 1&2
DECANT SUMP WORKPLAN DEVELOPMENT/APRV (H&S, QA)
DECANT SUMP PERFORMANCE SPEC/DESIGN
USEPA REVIEW AND APPROVE WORKPLAN
DECANT SUMP REMOVAL/CORRECTIVE ACTION
DECANT SUMP SAMPLE ANALYSIS/TREATMENT/FINAL RPT
PROCURE RTS BLOWER
PROCURE RTS VALVES
PROCURE ISOLATE RTS EQUIPMENT
PREPARE RTS PROCEDURES AND HEALTH & SAFETY PLAN
MAINTENANCE ISOLATE RADON TREATMENT SYSTEM
RTS CONSTRUCTION (DEMO, INSTALLATION, PREL TEST)
RTS CLOSE LOOP TEST
ORR REVIEW

Primavera Systems, Inc.

WESTINGHOUSE MATERIALS CO. OF OHIO
OU4 INTEGRATED PROJECT SCHEDULE
LEVEL IV DETAIL SCHEDULE

Sheet 1 of 2

Prepared by General Planning and Integration

Date	Revision	Checked	Approved

Project Start : 18SEP89
Project Finish: 10APR92

Data Date: 17MAY91
Plot Date: 17MAY91

4527

ACTIVITY ID	REM DUR	EARLY START	EARLY FINISH
			MODIFY RADON TREATMENT SYSTEM
Y407091005	14	12JUN91	25JUN91
Y407091007	1	26JUN91	26JUN91
Y407091006	14	27JUN91	10JUL91
			SLANT BORING SAMPLING
Y408095050	0	14DEC90A	14DEC90A
Y408095040	0	29JAN91A	7FEB91A
Y408095051	0	1MAR91A	4APR91A
Y408095044	21	5APR91A	6JUN91
Y408095047	44	18APR91A	29JUN91
Y408095048	7	7JUN91	13JUN91
			VERTICAL BORING (BERM) SAMPLING
Y409095041	0	22JAN91A	7FEB91A
Y409095042	0	24JAN91A	14FEB91A
Y409095050	0	12FEB91A	20FEB91A
Y409095043	0	5MAR91A	18APR91A
Y409095051	0	24APR91A	25APR91A
Y409095044	22	30APR91A	7JUN91
Y409095047	23	3MAY91A	8JUN91
Y409095048	7	8JUN91	14JUN91
			SECOND ATTEMPT - RESAMPLING K-65 RESIDUES
Y410091001	2	27MAR91A	20MAY91
Y410091002	43	11JUL91	22AUG91
Y410091004	34	18JUL91	20AUG91
			SURFACE MAPPING DEMONSTRATION IN SILO 4
Y411091001	6	7JAN91A	24MAY91
Y411331000	0	31JAN91A	12APR91A
Y411061000	1	6FEB91A	17MAY91
Y411071000	1	25FEB91A	17MAY91
Y411081000	0	25FEB91A	1APR91A
Y411091002	16	21MAR91A	7JUN91
Y411091010	8	10JUN91	19JUN91
Y411091011	2	20JUN91	21JUN91
Y411091003	5	24JUN91	28JUN91
Y411091004	5	1JUL91	5JUL91
			WASTE PIT STORMWATER RUNOFF REMOVAL ACTION
Y510091001	452	17APR91A	10AUG92

RTS FINAL TIE-IN TO SILOS/FINAL TESTING
RTS ORR ACCEPTANCE
RTS OPERATIONAL START-UP
USEPA APPROVES SLANT BORING WORK PLAN
MOBILIZATION FOR SLANT BORING SAMPLING
SLANT BORING PERMITS
SLANT BORING SAMPLING
SLANT BORING FIELD DATA VALIDATION
SLANT BORING SAMPLING DEMOBILIZATION
VERTICAL BORING WORKPLAN REVIEW/APPROVE BY USEPA
VERTICAL BORING MOBILIZATION
VERTICAL BORING PERMITS
VERTICAL BORING EQUIPMENT PROCUREMENT
VERTICAL BORING SAMPLING MOCK-UP
FOUR VERTICAL BORINGS
VERTICAL BORING FIELD DATA VALIDATION
VERTICAL BORING DEMOBILIZATION
SUBMIT SAMPLE PLAN/USEPA APPROVAL- K-65 RESAMPLE
K-65 RESAMPLING
RUN RTS EVERY 48 HOURS
PREPARE MAPPING DEMO RISK ASSESS RPT (QA REPORT)
SURFACE MAPPING DEMO SAFETY ASSESSMENT REPORT
SURFACE MAPPING DEMONSTRATION TEST PLAN
SURFACE MAPPING DEMO UTILITIES SERVICE DESIGN
SURFACE MAPPING DEMO HARDWARE MOUNTING DESIGN
PROCURE SURFACE MAPPING DEMO REMOTE EQUIPMENT
MOCK-UP/TEST MAPPING EQUIPMENT AT ORNL
DELIVER MAPPING EQUIPMENT TO FMPC
INSTALL SURFACE MAPPING DEMO REMOTE EQUIPMENT
INITIATE/CONDUCT MAPPING DEMONSTRATION
WASTE PIT RA ACTIVITIES IN K-65 AREA

Primavera Systems, Inc.

WESTINGHOUSE MATERIALS CO. OF OHIO
OU4 INTEGRATED PROJECT SCHEDULE
LEVEL IV DETAIL SCHEDULE

Sheet 2 of 2

Prepared by Technical Planning and Integration

Date	Revision	Checked	Approved

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